

SCIENCE

And Technology Program



Theme Area: Water Resources

Program Area: Technology Advancement

Project No.: WR00.09

Project Title: Water Quality Research Component of RiverWare

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Abstract: The Reclamation Carson City Area Office has decided to use RiverWare as the scheduling and operational model for future implementation of the Truckee River Operating Agreement. Integration and coupling of water quality components with the RiverWare model are critical to successful operation of the water conveyance and storage system which stretches from Lake Tahoe past Reno to Pyramid Lake. Research is required to determine viable approaches to address the complicated dynamic water quality issues affecting the fragile ecosystem of this precious desert water resource. Threatened and endangered fish species are affected by the water quality of the Truckee River. Nutrient uptake, growth, photosynthesis, scouring, and decay of periphyton (attached algae) greatly affect dissolved oxygen concentrations and will need to be accurately modeled with non-typical techniques.